

March 2, 2004

Weston Li
Environmental Specialist
Operating Permits Section, Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Rd., Suite 1
Urbandale, IA 50322

Dear Mr. Li,

Re: Muscatine Power and Water

On December 1, 2003, we received the copy of the draft Title V permit that is available for public comment until January 5, 2004. Our comments and questions are enclosed. If you have any questions, please do not hesitate to contact Harriett Jones of my staff, at (913) 551-7730, or jones.harriett@epa.gov.

Enclosure

Sincerely,

Donald Toensing, Chief
Air Permitting and Compliance Branch
Air, RCRA, and Toxics Division

cc: Doug Campbell, IDNR (w encl)

EPA Region 7 Comments on draft Title V Permit
for Muscatine Power and Water

EPA Comments on draft Title V Permit for Muscatine Power and Water

1. The name of the facility on IDNR's Construction Permit web page is "Muscatine Municipal Electric Plant," rather than "Muscatine Power and Water." To avoid confusion, the name of the facility should be the same for construction permitting and for Title V.
2. This facility is very complex in nature. More than one hundred individual units emit an annual total of more than 15,000 tons of sulfur dioxide (SO₂), more than 11,000 tons nitrous oxides (NO_x), nearly 4,000 tons of particulates, and approximately 500 tons of hazardous air pollutants (HAPs). The facility is located in an SO₂ maintenance area, and is subject to a major source preconstruction permit issued by EPA in 1980 (which incorporates an agreement between the State and the source), as well as numerous pre-construction permits issued by the State, two of which are part of the federally-approved State Implementation Plan (SIP). This complexity makes an accurate and complete determination that all applicable requirements have been included in the permit particularly challenging. It also necessitates that special effort be undertaken to document for the record, as well as for the public, in the public notice Fact Sheet and the Permit Writer's Notes, an explanation of the basis for the federal and state requirements.

The applicability of PSD (prevention of significant deterioration), LAER (lowest achievable emission rate) and BACT (best available control technology) and the emission units and pollutants to which each applies should be clearly explained in the permitting record (*e.g.*, LAER limits and off-sets on PM and SO₂ emissions from Boilers #5, 6, 7, 8, and 9; BACT limits on NO_x emissions from Boiler #9; *etc.*)

The record should clearly indicate that certain requirements, including those that derive from the major source pre-construction permit issued by EPA and the two State-issued pre-construction permits currently in the approved SIP, cannot be relaxed absent federal approval action.

3. The PSD permit issued by EPA in 1980 and modified in 1982 remains federally enforceable unless and until revised by EPA. This permit and revision appear on Iowa's construction permit web-site under permit numbers 80-E-001 and 80-E-001-S, and should be referred to by these numbers as well as the dates issued and last modified. This permit should be listed with the other Authorities for Requirement for each permit condition for which it provides a basis (*e.g.*, SO₂ Continuous Emissions Monitoring, Boiler #9).
4. The PSD permit issued and amended by EPA contains the following requirements which must be incorporated into the Title V permit:

BACT limit for NO_x

| | |
|-----------|--|
| Boiler #9 | 0.60 lbs/MMBtu of heat inputbituminous coal |
| | 0.50 lbs/MMBtu of heat inputsubbituminous coal |
| | 0.30 lbs/MMBtu of heat inputoil |
| | 0.20 lbs/MMBtu of heat inputgas |

It appears that Boiler # 9 is not capable of burning natural gas, so the last emission factor was omitted as non-applicable. However, although the first three emission factors are listed as applicable requirements in the draft Title V permit, they are not identified as BACT requirements stemming from a federally-issued PSD permit. The permit should be revised to include a reference to this source of the requirement and to clarify that this requirement is a BACT limit which may not be relaxed unless the PSD permit issued by EPA is modified by EPA.

5. The major source pre-construction permit issued by EPA in 1980 and modified in 1982 incorporates the agreement signed by the State and the source in January 1980 and subsequently revised in December 1982. This revised agreement established LAER and off-set requirements for SO₂ emissions from Boilers # 5, 6, 7, 8 and 9, all of which appear to be primarily coal-fired boilers. Although the construction permits issued for Boiler # 5 (Permit # 74-A-175, September 24, 1974) and Boiler # 6 (Permit # 74-A-176, September 24, 1974), which establish opacity and PM emission limits for these two boilers, remain on Iowa's construction permit web page, these units are not mentioned in the draft Title V permit. If these units are still active, they must be addressed in the Title V permit. If the units have been retired and removed, this should be explained, and the permits and permit requirements associated with them should be eliminated.
6. The December 1982 agreement between the State and the source, which is incorporated by reference in the EPA-issued major source preconstruction permit, set a maximum LAER off-set emission limit of 7912 lbs SO₂/hr total from Boilers # 5, 6, 7 and 8. There is nothing in the record to indicate the current status of Boilers #5 and 6, or how the LAER off-set emission limit of 2772 lb SO₂ /hr for Boilers #7 and 8 was derived. The draft title V permit conditions for Boilers #7 and 8 do not include the EPA-issued major source preconstruction permit (#80-E-001, 80-E-001-S1) although it does include requirements applicable to Boilers #7 and 8. The draft Title V permit conditions for Boilers #7 and 8 do not clarify that the requirements specified in the two construction permits that have been approved as part of the SIP remain federally enforceable unless and until the SIP is revised.
7. Emission Unit #350 is described in the draft Title V permit as "350, LSC-1, Conveyer Discharge" with a rated capacity of "500 tons/hr" of coal. The authority for the particulate matter (PM) emission limit of "0.01 grains per dry standard cubic foot (gr/dscf)" is listed as Iowa Construction Permit # 80-A-192."

Iowa Construction Permit # 80-A-192 describes the emission unit as "Unit #9, Crusher House Exhaust," and does not specify an hourly capacity, but does list the annual capacity as 1,480,000 tons/year of coal. This number is not consistent with the 500

ton/hr capacity listed in the draft Title V permit. The construction permit describes the PM emission limit as “LAER” and sets it at “0.01 grain per standard cubic foot (gr/scf).”

Iowa Construction Permit # 80-A-192 includes the following statement: “Muscatine Power and Water is reminded that all requirements of the agreements entered into by MP&W and IDEQ dated 12-28-79 and 1-18-80 remain in effect.” This construction permit does not, however, include a reference to the currently applicable agreement which is dated December 1982.

It appears that the requirements in permit # 80-A-192 have not been accurately incorporated into the draft Title V permit as required. If amendments are necessary to any of the construction permits, they should be made prior to issuance of the Title V permit.

8. In general, the difference in emission unit names and numbers between the construction permits and the draft Title V permit makes tracking the applicable requirements, which is already difficult given the large number of emission units and construction permits (since Iowa issues a separate construction permit for each emission unit), much more complicated. Consistent emission unit names and numbering systems should be used to avoid confusion.
9. Emission point characteristics such as temperature and flowrates should be specified as minimums or maximums, or within a specified numerical range.
10. The Operation and Maintenance (O&M) Plans incorporated into the Title V permit specify that certain operating “indicator” parameters must be within “range.” One example is the O&M plan included for the Electrostatic Precipitator associated with Boiler # 7.) However, the O&M plans do not specify what the “indicator” parameters are (*e.g.*, pressure drop, temperature, flow, *etc.*), or what the numerical limits of the “range” are. In order for the permit to be enforceable, both must be included.
11. According to the pre-construction permit issued in November 1980 by the State for the auxiliary boiler (Permit # 80-A-191), the emission limits for particulates and SO₂ are LAER. The draft title V permit does not include this information in the permit condition applicable to the auxiliary boiler. In addition, Permit # 80-A-191 indicates that the following control equipment is to be installed on this emission unit: ESP followed by wet scrubber. The draft Title V permit condition for the auxiliary boiler does not specify any control equipment for this unit.
12. Please note that the following two standards are scheduled to be promulgated as final rules no later than February 28, 2004:
 - Part 63, Subpart DDDDD, Industrial, Commercial and Institutional Boilers and Process Heaters
 - Part 63, Subpart, ZZZZ, Reciprocating Internal Combustion Engines.

It appears likely that these standards will apply to emission units covered by this Title V Permit. If the permit has already been issued when these rules are promulgated, the permit will have to be reopened for cause and the new applicable requirements added.